

I hereby certify that this correspondence and any documents referred to as enclosed or attached is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to: Attn: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on July 25th, 2003.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

10/ Bureau  
8/7/03

Attorney Docket No.: 284-15718-US

**RESPONSE TO OFFICE ACTION**  
**MAILED MAY 20, 2003**

RECEIVED  
JUL 30 2003  
TECHNOLOGY CENTER 2800

**Applicant responds as follows to the office action mailed May 20, 2003:**

**Please amend the claims as follows:**

1. (First Amended) An apparatus for determining a subsurface characteristic of a formation penetrated by a wellbore, comprising: